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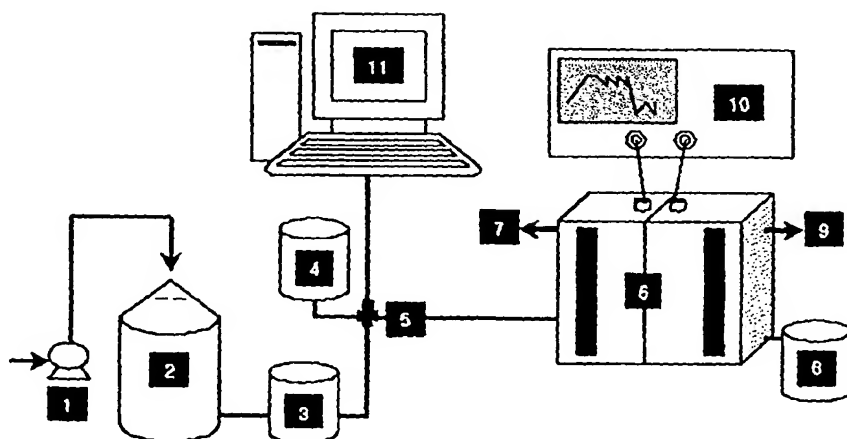
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(54) Title: METHOD AND DEVICE FOR DETECTING TOXIC MATERIAL IN WATER USING MICROBIAL FUEL CELL



(57) Abstract: The present invention relates to a method and device for detecting the toxic materials in water by using an electrochemically active microorganism. Described in details, the present invention comprises the steps of: determining the electrical signals, generated by the microbial fuel cell; introducing the sample into the above-mentioned fuel cell; and determining the degree of changes in the electrochemical signals, generated by the above-mentioned microbial fuel cell, in order to provide a method for detecting the toxic materials in water. Thus,

according to the present invention, when toxic materials are present in the sample for determination, generation of electricity by the electrically active bacteria in the microbial fuel cell is decreased remarkably, maximizing the sensitivity in determining the toxic materials. The use of the microbial fuel cell minimizes the cost and the personnel for the management and the maintenance of the sensor part.

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